

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A method of detecting a DNA in a crude milk sample, said method comprising the steps of:
 - (a) contacting said crude milk sample with a metal ion chelator;
 - (b) contacting said crude milk sample with a detergent;
 - (c) contacting said crude milk sample with a fluorescent label; and
 - (d) after steps (a), (b), and (c), detecting said fluorescent label in said crude milk sample thereby detecting the DNA in said crude milk sample.
2. (Original) The method of claim 1, wherein no protease is added to said milk sample.
3. (Original) The method of claim 1, wherein said detecting said DNA is quantitating said DNA, thereby determining the somatic cell count within the milk sample.
4. (Original) The method of claim 3, wherein said milk sample is a crude bovine milk sample.
5. (Original) The method of claim 1, wherein said metal ion chelator is a member selected from the group of EDTA, CyDTA, DHEG, DTPA-OH, DTPA, EDDA, EDDP, EDDPO, EDTA-OH, EDTPO, EGTA, HBED, HDTA, HIDA, IDA, Methyl-EDTA, NTA, NTP, NTPO, O-Bistren, and TTHA, o-phenanthroline, dipicolinic acid, and deferoxamine.
6. (Original) The method of claim 1, wherein said metal ion chelator is EDTA.
7. (Original) The method of claim 1, wherein said detergent is a non-ionic detergent.

8. (Original) The method of claim 7, wherein said non-ionic detergent is a member selected from the group of Octylglucoside, Digitonin, C12E8, Lubrol, Triton X-100, Nonidet P-40, Tween-80, Tween-20, BRIG 35, Dodecyl maltopyranoside, Heptyl thioglucopyranoside, Pluronic F-127, Genapol X-080, MEGA 10.

9. (Original) The method of claim 1, wherein said detergent is Tween-20.

10. (Cancelled)

11. (Original) The method of claim 1, wherein the pH of the milk sample is between 8.0 and 11.0, inclusive.

12. (Previously Presented) An analytical composition comprising a crude milk sample, a metal ion chelator, a fluorescent label, and a detergent, wherein said crude milk sample comprises a nucleic acid.

13. (Cancelled).

14. (Original) The composition of claim 12, wherein said nucleic acid is a DNA.

15. (Cancelled).

16. (Original) The composition of claim 12, wherein said composition does not include a protease.

17. (Original) The composition of claim 12, wherein said metal ion chelator is a member selected from the group of EDTA, CyDTA, DHEG, DTPA-OH, DTPA, EDDA, EDDP, EDDPO, EDTA-OH, EDTPO, EGTA, HBED, HDTA, HIDA, IDA, Methyl-EDTA, NTA, NTP, NTPO, O-Bistren, and TTHA, o-phenanthroline, dipicolinic acid, and deferoxamine.

18. (Original) The composition of claim 12, wherein said metal ion chelator is EDTA.

19. (Original) The composition of claim 12, wherein said detergent is a non-ionic detergent.

20. (Original) The composition of claim 19, wherein said non-ionic detergent is a member selected from the group of Octylglucoside, Digitonin, C12E8, Lubrol, Triton X-100, Nonidet P-40, Tween-80, Tween-20, BRIG 35, Dodecyl maltopyranoside, Heptyl thioglucopyranoside, Pluronic F-127, Genapol X-080, MEGA 10.

21. (Original) The composition of claim 12, wherein said detergent Tween-20.

22. (Previously presented) A kit for detecting a nucleic acid in a crude milk sample comprising a metal ion chelator, a detergent, and a fluorescent label.

23. (Original) The kit of claim 22 further comprising a fluorescence detection system.